

PENDING CLAIMS AS AMENDED

1-8. (cancelled)

5/17 9. (Currently Amended) A method comprising:
receiving a plurality of information bits, the plurality of information bits containing different classes of information bits;

determining an outer quality metric in accordance with the plurality of information bits and an inner quality metric in accordance with at least one group of information bits ~~contained in the plurality of information bits~~ of a particular class; and

forming a frame comprising the plurality of information bits, the outer quality metric, and the inner quality metric, the outer quality metric being used for protection of the plurality of information bits and the inner quality metric being used for protection of the at least one group of information bits of the particular class.

DI 10. (Previously Presented) The method of claim 9 wherein the outer quality metric comprises a cyclic redundancy check (CRC).

11. (Previously Presented) The method of claim 9 wherein the outer quality metric comprises a parity bit.

12. (Previously Presented) The method of claim 9 wherein the inner quality metric comprises a cyclic redundancy check (CRC).

13. (Previously Presented) The method of claim 9 wherein the inner quality metric comprises a parity bit.

14. (Previously Presented) The method of claim 9 further comprising:
transmitting the frame to a destination;
receiving the frame at the destination; and

determining whether the frame has been correctly received based on the outer quality metric contained in the frame.

15. (Previously Presented) The method of claim 14 further comprising:

if the frame has not been received correctly, determining whether the at least one group of information bits has been received correctly based on the inner quality metric contained in the frame; and

recovering the at least one group of information bits if the inner quality metric indicates that the at least one group of information bits has been received correctly.

16. (Currently Amended) A method comprising:

receiving a frame comprising an outer quality metric and an inner quality metric, the outer quality metric being used to verify whether the frame has been received correctly and the inner quality metric being used to verify whether a corresponding group of information bits of a particular class contained in the frame has been received correctly; and

recovering information contained in the frame including the corresponding group of information bits if it is determined that the frame has been correctly received as indicated by the outer quality metric; and

recovering the corresponding group of information bits if it is determined that the frame has not been received correctly as indicated by the outer quality metric but the corresponding group of information bits has been correctly received as indicated by the inner quality metric.

17. (Previously Presented) The method of claim 16 further comprising:

determining whether the frame has been received correctly by checking the outer quality metric; and

if the frame has not been received correctly as indicated by the outer quality metric, determining whether the corresponding group of information bits has been correctly received by checking the inner quality metric.

18. (Previously Presented) The method of claim 16 wherein the inner quality metric comprises a cyclic redundancy check (CRC).

19. (Previously Presented) The method of claim 16 wherein the inner quality metric comprises a parity bit.

20. (Currently Amended) A method comprising:

receiving a frame comprising an outer quality metric and an inner quality metric, the outer quality metric being used to verify whether the frame has been received correctly and the inner quality metric being used to verify whether a corresponding portion of the frame containing information bits of a particular class has been received correctly;

determining whether the frame has been correctly received based the outer quality metric contained in the frame; and

if the frame has not been correctly received as indicated by the outer quality metric, determining whether the corresponding portion of the frame has been correctly received based on the respective inner quality metric.

21. (Previously Presented) The method of claim 20 further comprising:

discarding the frame if the frame has not been correctly received as indicated by the outer quality metric and the corresponding portion of the frame has not been received correctly as indicated by the inner quality metric.

22. (Previously Presented) The method of claim 20 further comprising:

if the corresponding portion of the frame has been correctly received as indicated by the respective inner quality metric, recovering the corresponding portion of the frame.

23. (Previously Presented) The method of claim 22 wherein the outer quality metric comprises a cyclic redundancy check (CRC) and the inner quality metric comprises a cyclic redundancy check (CRC).

24. (Currently Amended) An apparatus comprising:

a first component to generate a plurality of information bits containing multiple groups of information bits of different classes; and

a second component to determine an outer quality metric in accordance with the plurality of information bits, to determine an inner quality metric in accordance with a group of information bits of a particular class contained in the plurality of information bits, and to form a frame comprising the plurality of information bits, the outer quality metric and the inner quality metric, the outer quality metric being used to protect the plurality of information bits and the inner quality metric being used to protect the group of information bits, respectively.

25. (Previously Presented) The apparatus of claim 24 wherein the outer quality metric comprises a cyclic redundancy check (CRC).

26. (Previously Presented) The apparatus of claim 24 wherein the outer quality metric comprises a parity bit.

27. (Previously Presented) The apparatus of claim 24 wherein the inner quality metric comprises a cyclic redundancy check (CRC).

28. (Previously Presented) The apparatus of claim 24 wherein the inner quality metric comprises a parity bit.

29. (Previously Presented) The apparatus of claim 24 further comprising:

a third component to receive the frame at a destination and to recover the plurality of information bits including the group of information bits if it is determined that the frame has been received correctly as indicated by the outer quality metric contained in the frame, the third component to recover the group of information bits if it is determined that the frame has not been received correctly but the group of information bits has been received correctly as indicated by the inner quality metric contained in the frame.

30. (Currently Amended) An apparatus comprising:

a decoder to receive and decode a frame comprising an outer quality metric and an inner quality metric, the outer quality metric being used to verify whether the frame has been received correctly and the inner quality metric being used to verify whether a corresponding group of information bits of a particular class contained in the frame has been received correctly, the decoder to recover information contained in the frame including the corresponding group of information bits if it is determined that the frame has been correctly received as indicated by the outer quality metric, the decoder to recover the corresponding group of information bits if it is determined that the frame has not been received correctly as indicated by the outer quality metric but the corresponding group of information bits has been correctly received as indicated by the inner quality metric.

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31. (Previously Presented) The apparatus of claim 30 wherein the decoder determines whether the frame has been received correctly by checking the outer quality metric and, if the frame has not been correctly received as indicated by the outer quality metric, determines whether the corresponding group of information bits has been correctly received by checking the inner quality metric.

32. (Currently Amended) A system comprising:

a transmitter to construct and transmit a frame comprising a plurality of information bits of different classes, an outer quality metric and an inner quality metric, the outer quality metric being used to protect the plurality of information bits and the inner quality metric being used to protect a particular portion of the plurality of information bits corresponding to a particular class; and

a receiver to receive and decode the frame, the receiver to recover information contained in the frame including the particular portion of the plurality of information bits if it is determined that the frame has been correctly received as indicated by the outer quality metric, the receiver to recover the particular portion of the plurality of information bits if it is determined that the frame has not been received correctly but the particular portion has been correctly received as indicated by the inner quality metric.

33. (Previously Presented) The system of claim 32 wherein the transmitter comprises a processor to determine the outer quality metric in accordance with the plurality of information bits and the inner quality metric in accordance with the particular portion and to form the frame.

34. (Previously Presented) The system of claim 32 wherein the receiver comprises a decoder to determine whether the frame has been correctly received based on the outer quality metric contained in the frame and whether the particular portion has been received correctly based on the inner quality metric contained in the frame.
